Mutex Overview Exercises

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Mutex

- Explain how using a mutex allows multiple threads to access shared data safely

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Data Race Example with std::mutex

- Rewrite your program from the previous lecture so that it uses a mutex to avoid the data race
- Run your program several times to verify that the output is not interleaved

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Drawbacks of std::mutex

- What happens if a thread calls lock() but does not call unlock()?

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Mutex wrappers

- Which two classes does C++ provide to manage mutexes?
- How do these classes avoid the drawbacks of using std::mutex directly?
- Rewrite your program twice, to use each of these classes to avoid a data race

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